Appendix A: Multivariate Models

Model 1: Perceived Cost of Attendance and its Effect on Future Enrollment

Specifications

The following questions have been recoded to create the dependent variable "College Index.": (Q5) What do you plan to do after high school? (Q28) If you decided to attend college, when would you start? The resulting variable has four values indicating the possibility of attendance: 4=High likelihood 3=mid-high 2=mid-low 1=low.

The following independent variables were included:

(Q19a) Respondent estimate of CC tuition
(Q19b) Respondent estimate of UK tuition
(CCDiff) Difference between actual and estimated CC tuition (note—most estimates are much higher than the actual, causing many negative values in this variable
(UKDiff) Difference between actual and estimated UK tuition (note—most estimates are much higher than the actual, causing many negative values in this variable
(Q20Recode) Do you think you would need student aid if you decided to go to college? (3=Yes 2=Maybe 1=No)
(Q21) How much money would you be willing to borrow for your first year of college?
(Q22a) I have talked with my parents about how much college will cost (1=yes 2=no)
(Q22b) My parents have said they will help me financially (1=yes 2=no)
(Q22c) I have saved money to help pay my college costs (1=yes 2=no)
(Q22d) My family has saved money to help pay my college costs (1=yes 2=no)
(Q23) How many hours are you working now?
(Q24Recode) Would you have to work if you went to college? (3=Yes 2=Maybe 1=No)

A stepwise regression was run, and the variables included in the model are as follows:
(Q22a) I have talked with my parents about how much college will cost (1=yes 2=no)
(Q22d) My family has saved money to help pay my college costs (1=yes 2=no)
(Q24Recode) Would you have to work if you went to college? (3=Yes 2=Maybe 1=No)
(Q22c) I have saved money to help pay my college costs (1=yes 2=no)

All variables carry a negative relationship. Therefore,

1. If they talked with their parents about costs, they were more likely to have a higher college-going index.
2. If the family saved money, they were more likely to have a higher college-going index.
3. If they didn't have to work when they go to college, they were more likely to have a higher college-going index.
4. If the students themselves saved money, they were more likely to have a higher college-going index.

The r-square is only .143.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
4	.378(d)	0.143	0.14	0.74358

d Predictors: (Constant), Q22a. Talked with Parents about College Costs (1=yes 2=no), Q22d. Family has Saved for College Costs (1=yes 2=no), Q24Recode. Have to work if go to college? (3=yes 1=no), Q22c. I Have Saved with College Costs (1=yes 2=no)

ANOVA(e)

Model		Sum of Squares	df	Mean Square	F	Sig.
4	Regression	107.985	4	26.996	48.825	.000(d)
	Residual	649.126	1174	0.553		
	Total	757.111	1178			

d Predictors: (Constant), Q22a. Talked with Parents about College Costs (1=yes 2=no), Q22d. Family has Saved for College Costs (1=yes 2=no), Q24Recode. Have to work if go to college? (3=yes 1=no), Q22c. I Have Saved with College Costs (1=yes 2=no)

e Dependent Variable: CollegeIndex

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
4	(Constant)	5.086	0.131		38.792	0
	Q22a. Talked with Parents about College Costs (1=yes 2=no)	-0.638	0.068	-0.261	-9.421	0
	Q22d. Family has Saved for College Costs (1=yes 2=no)	-0.222	0.047	-0.137	-4.73	0
	Q24Recode. Have to work if go to college? (3=yes 1=no)	-0.144	0.034	-0.118	-4.272	0
	Q22c. I Have Saved with College Costs (1=yes 2=no)	-0.144	0.046	-0.089	-3.13	0.002

a Dependent Variable: CollegeIndex

Model 2: Bachelor's Degree Anticipated in High School

The outcome variable is the probability of a high school student aspiring to at least a bachelor's degree. Almost 68 percent of the students sampled reported such aspirations. The source of this variable is (Q11) on the part of the student. The analyses can be interpreted as correlates or predictors of such aspiration. The predictors we examined are: ethnicity (white is the default category), gender (male is the default category), students' perceived parental expectations for highest education to be attained (high school or less is the default category), educational legacy (HS or less is the default category), have taken honors classes (never taken is the default category), and discussing admission requirements with parents, high school counselors, high school teachers and college recruiters (never is the default category).

The table reports the betas, corresponding standard errors and marginal probabilities. The model was robust. It correctly identified 92 percent of the cases that reported aspiring for at least a bachelor's degree. Having parents holding high educational aspirations is the strongest predictor of children's own expectations. Having parents holding expectations for some college produces a negative effect. Discussing college admission requirements with teachers has no effect; however, counselors and parents do matter.

	Beta		S.E.	Delta-*p*		Sig.
[Gender] Female vs. Male	-0.163		0.213	-		0.445
[Race] Black vs. White	-0.112		0.466	-		0.811
[Race] Other vs. White	-0.551		0.433	-		0.203
[Parental Education] Some college vs. HS or less	0.242		0.243	-		0.318
[Parental Education] Bachelor or more vs. HS or less	0.71	**	0.282	0.132	**	0.012
[Parent Expectation] Some college vs. HS or less	-0.804	***	0.311	-0.193	***	0.01
[Parent Expectation] Bachelor or more vs. HS or less	3.457	***	0.311	0.306	***	0
[AP/Honor Class] 1~2 classes vs. None	0.42		0.248	-		0.091
[AP/honor Class] 3or more classes vs. None	1.411	***	0.269	0.218	***	0
[Discuss admission with Parent] 1~2 vs. Never	0.867	**	0.387	0.155	**	0.025
[Discuss admission with Parent] 3 or more vs. Never	1.187	***	0.394	0.195	***	0.003
[Discuss admission with Counselor] 1~2 vs. Never	0.391		0.259	-		0.132
[Discuss admission with Counselor] 3 or more vs. Never	0.717	**	0.352	0.133	**	0.042
[Discuss admission with Teacher] 1~2 vs. Never	-0.18		0.277	-		0.516
[Discuss admission with Teacher] 3 or more vs. Never	0.111		0.36	-		0.758
[Discuss admission with Recruiter] 1~2 vs. Never	0.238		0.243	-		0.326
[Discuss admission with Recruiter] 3 or more vs. Never	0.04		0.344	-		0.907
Constant	-0.008		0.239	-		0.975

Baseline *p*: probability of Anticipating 4-year Degree	0.679
Model Chi-square, *df*	990.937, 17
Percent of Correctly Predicted Cases	91.5

Model 3: Over-estimation of Tuition (More than $1,000 is defined as over-estimation)

Using an estimated tuition of $2,600 for Kentucky, we divided the sample into two groups - those who overestimated the University of Kentucky's tuition by $1,000 or more versus those who did not. A large proportion of students overestimated the University's tuition by $1,000 or more (84.3 percent). Next, we ran a logistic regression model with similar predictors than the ones we used for the college aspirations model. The logistic regression model was significant and correctly predicted 86.7 percent of those students who overestimated tuition costs. African Americans are 13 percent less likely to underestimate the University's tuition than are Whites. Also, discussing college admissions with parents and high school counselors increases the likelihood of underestimating the University's tuition. Apparently parents and high school counselors are themselves misinformed as to how much it costs to attend the University, which is reflected in the students' own estimates.

	Beta		S.E.	Delta-*p*		Sig.
[Gender] Female vs. Male	0.318		0.195	-		0.103
[Race] Black vs. White	-0.784	**	0.35	-0.133	**	0.025
[Race] Other vs. White	0.033		0.421	-		0.938
[Parental Education] Some college vs. HS or less	-0.023		0.235	-		0.921
[Parental Education] Bachelor or more vs. HS or less	0.32		0.262	-		0.222
[Parent Expectation] Some college vs. HS or less	-0.017		0.37	-		0.964
[Parent Expectation] Bachelor or more vs. HS or less	0.356		0.397	-		0.371
[AP/Honor Class] 1~2 classes vs. None	-0.05		0.249	-		0.842
[AP/honor Class] 3or more classes vs. None	0.225		0.258	-		0.383
[Discuss admission with Parent] 1~2 vs. Never	1.027	***	0.33	0.094	***	0.002
[Discuss admission with Parent] 3 or more vs. Never	1.401	***	0.339	0.113	***	0
[Discuss admission with Counselor] 1~2 vs. Never	0.222		0.251	-		0.377
[Discuss admission with Counselor] 3 or more vs. Never	0.767	**	0.351	0.077	**	0.029
[Discuss admission with Teacher] 1~2 vs. Never	0.105		0.27	-		0.698
[Discuss admission with Teacher] 3 or more vs. Never	-0.554		0.33	-		0.093
[Discuss admission with Recruiter] 1~2 vs. Never	-0.296		0.227	-		0.191
[Discuss admission with Recruiter] 3 or more vs. Never	0.079		0.332	-		0.812
[College Aspiration] Bachelor vs. No Bachelor	0.073		0.32	-		0.819
Constant	0.1		0.364	-		0.783

Baseline *p*: probability of Anticipating 4-year Degree	0.843
Model Chi-square, *df*	64.296, 18
Percent of Correctly Predicted Cases	86.8